

**MIT Joint Program on the Science and Policy of Global Change
Massachusetts Institute of Technology, Cambridge, USA**

<http://globalchange.mit.edu>

GTAP-related activities, 2017

The MIT Joint Program on the Science and Policy of Global Change made extensive use of the GTAP data set for research and analysis conducted in the program over the past year (see the following publication list). GTAP data serves as the principal economic data for the Program's Economic Projection and Policy Analysis (EPPA) Model, a global CGE model of the world economy with details on the energy sector and on emissions of greenhouse gases and other air pollutants. The EPPA model was used for variety of applications.

**2017 AND 2018 PUBLICATIONS BY MIT JOINT PROGRAM USING GTAP (AS OF
MAY 2018)**

Journal Publications:

Paltsev, S., Y-H. Chen, V. Karplus, P. Kishimoto, J. Reilly, A. Loeschel, K. von Graevenitz, and S. Koesler, 2018, "Reducing CO2 from cars in the European Union," *Transportation*, 45(2), 573-595.

Winchester, N., K. Ledvina, K. Strzepek and J.M. Reilly, 2018, "The Impact of Water Scarcity on Food, Bioenergy and Deforestation," *Australian Journal of Agriculture and Resource Economics*, 59, 1-25.

Monier, E., S. Paltsev, A. Sokolov, Y.-H.H. Chen, X. Gao, Q. Ejaz, E. Couzo, C. Schlosser, S. Dutkiewicz, C. Fant, J. Scott, D. Kicklighter, J. Morris, H. Jacoby, R. Prinn, and M. Haigh, 2018, "Toward a consistent modeling framework to assess multi-sectoral climate impacts," *Nature Communications*, 9, 660.

Zhang, D., J. Caron, and N. Winchester, 2018, "Sectoral aggregation bias in the accounting of energy and emissions embodied in trade and consumption," *Journal of Industrial Ecology*, online first
(<http://onlinelibrary.wiley.com/doi/10.1111/jiec.12734/full>)

Winchester, N. and K. Ledvina, 2017, "The Impact of Oil Prices on Bioenergy, Emissions and Land Use," *Energy Economics*, 65, 219-227.

Paltsev, S., 2017, “Energy Scenarios: The Value and Limits of Scenario Analysis,” *WIRE Wiley Interdisciplinary Reviews: Energy and Environment*, 6, e242.

Kearns, J., G. Teletzke, J. Palmer, H. Thomann, H. Kheshgi, H. Chen, S. Paltsev, H. Herzog, 2017, “Developing a Consistent Database for Regional Geologic CO₂ Storage Capacity Worldwide,” *Energy Procedia*, 114, 4697-4709.

Ramberg, D., Y-H. Chen, S. Paltsev, and J. Parsons, 2017, “The economic viability of Gas-to-Liquids technology and the crude oil-natural gas price relationship,” *Energy Economics*, 63, 13-21.

MIT Joint Program Reports:

Winchester, N. and J.M. Reilly (2018): The Economic, Energy and Emissions Impacts of Climate Policy in South Korea. Joint Program Report Series Report 328. (<http://globalchange.mit.edu/publication/16975>)

Singh, A., N. Winchester and V.J. Karplus (2018): Evaluating India’s climate targets: the implications of economy-wide and sector specific policies. Joint Program Report Series Report 327, (<http://globalchange.mit.edu/publication/16924>)

Makarov, I., Y.-H.H. Chen and S. Paltsev (2017): Finding itself in the post-Paris world: Russia in the new global energy landscape. Joint Program Report Series Report 324. (<http://globalchange.mit.edu/publication/16859>)

Ledvina, K., N. Winchester, K. Strzepek and J.M. Reilly (2017): New data for representing irrigated agriculture in economy-wide models. Joint Program Report Series Report 321. (<http://globalchange.mit.edu/publication/16809>)

Winchester, N. (2017): Can Tariffs be Used to Enforce Paris Climate Commitments?. Joint Program Report Series Report 312. (<http://globalchange.mit.edu/publication/16716>)

Sokolov, A., S. Paltsev, H. Chen, M. Haigh, R. Prinn and E. Monier (2017): Climate Stabilization at 2°C and Net Zero Carbon Emissions. MIT Joint Program Report 309, Cambridge MA. (<https://globalchange.mit.edu/publication/16629>)

Jacoby, H.D., Y.-H.H.Chen and B.P. Flannery (2017): Transparency in the Paris Agreement. MIT Joint Program Report 308, Cambridge MA. (<https://globalchange.mit.edu/publication/16547>)